

## Context of Coral Reef Fishery Assessment **FISHERIES** SERVICE



- 1990's: Coral reef fishing allowed in the NWHI and other **Federal waters**
- 2000's:
- NMFS initiates Ecosystem Management Plans (hints at "Ecosystem Management Councils"
  - Coral Reef Fishery Ecosystem Management Plan Initiated by the Western Pacific Regional Fishery Management Council (WPRFMC)
  - Fishing for reef fish prohibited by National Monuments established over the largest expanses of reef habitat in Federal waters leaving Federally "managed" coral reef stocks, but almost no habitat in Federal waters
- The other Federally-managed fisheries in the Northwestern Hawaiian Islands also closed by the **Monument**
- **HMS** management undertaken by Central and Western **Pacific Fishery Commission**

# Stock Assessment Prioritization: Guiding Decisions on Which fish stocks to assess?

Stocks are considered "managed" and require assessment once they are included in Fishery Management (or Ecosystem) Plans.

Assessment Prioritization is needed to target levels and frequency of assessment upon factors such as the importance of the stock to commercial, recreational and subsistence fisheries.

With data poor stocks there is a need for adaptive, robust management strategies that can respond relatively quickly to new data or misinterpretation of previous data. This in turns implies the need for Management Strategy Evaluation (MSEs). This requires operational models that depict the current understanding of a population or an ecosystem which can be tested against alternative hypotheses how the system works, and operational models of how management can respond, and with what effect, given the scientific uncertainties and limitations of management.

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## Recent Commercial Landings and Value of Insular Fisheries

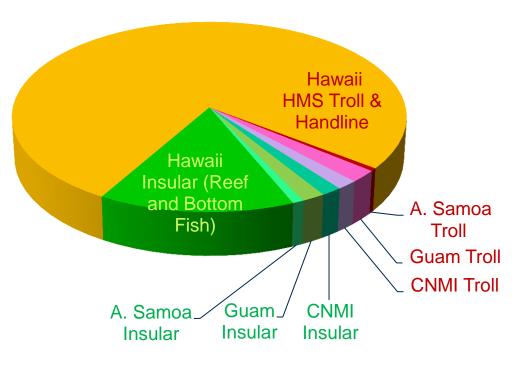
TOTAL US HMS LANDINGS were 220,000 mt =500 million pounds (worth \$500 million FOB)

Other Territorial
HMS Fisheries
Other Hawaii
HMS Fisheries
Other Hawaii
HMS Fisheries

A comparison of these two smallest HMS fisheries (pink and orange wedges) with all of the State and Territory small-vessel and shore-based fisheries for insular species (bottom and reef fish, in shades of green) is shown on the right

#### IN COMPARISON:

COMMERCIAL LANDINGS by small-vessel and shore-based fisheries ~ 3,000 mt = 7 million lbs (HMS worth \$10 million, Insular worth \$5 million FOB)



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## Reef Fish Complexes in Hawaii & Territories



- Most Recent Concern
  - Least Federal Authority

Commercial Landings of ~ 470,000 pounds

Big Uncertainties with Much Larger **Estimates of Recreational Landings** REEF FISH Longnose Butterfly Fourspot Butterfly Lau Wiliwili-Nukuruku-0i0i) Fantail Filefish Threadfin Butterfly Blue Cravalle Hawaii Reef Redlip Parrot (IP) Lionfish (Nobu) **CNMI** Reef Yellow-tail Wrasse (Coris) A Samoa Reef Pinktail Triggerfish Bluestripe Butterfly **Guam Reef** Sixbar Wrasse Slingjaw Wrasse Bird Wrasse Red parrot Fish (Uhu)-Female White-Spotted Puffe Blue and Yellow Fusilier Whitespot Goatfish Striped Squirrelfish